



United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
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Laboratory Results

November 28, 2017

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US EPA New England R1

Project No: 17110022

Project: Merrymeeting River - New Durham, NH

Analysis: Total Phosphorus in Water as P

EPA Chemist: Bhavita Patel

Date Samples Received by the Laboratory: 11/14/2017

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIASOP-INGTP11.

The SOP is based on the Lachat Method 10-115-01-1-F and EPA method 365.1 "Determination of Phosphorous by Semi-Automated Colorimetry", Revision 2.0, August 1993 .

The method used for digestion of soil samples was developed at NERL.

Samples were analyzed on a Lachat Automated Ion Analyzer.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

If you have any questions please call me at 617-918-8340.

Sincerely,

17110022TP

Qualifiers:

RL = Reporting limit

ND = Not Detected above Reporting limit

NA = Not Applicable due to high sample dilutions or sample interferences

NC = Not calculated since analyte concentration is ND.

J = Estimated value

J1 = Estimated value due to MS recovery outside acceptance criteria

J2 = Estimated value due to LFB result outside acceptance criteria

J3 = Estimated value due to RPD result outside acceptance criteria

J4 = Estimated value due to LCS result outside acceptance criteria

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.

R = No recovery was calculated since the analyte concentration is greater than four times the spike level.

P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.

C = The identification has been confirmed by GC/MS.

A = Suspected Aldol condensation product.

N = Tentatively identified compound.

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Merrymeeting River - New Durham, NH

Total Phosphorus in Water as P

Matrix: Water

Sample Number	Lab ID	Collected	Extracted	Analysis	Concentration ug/L	RL ug/L	Qualifier
MM01	AB71182	11/14/2017 10:41	11/21/2017	11/22/2017	ND	5	
Comments:							
PM01	AB71183	11/14/2017 10:55	11/21/2017	11/22/2017	21	5	
Comments:							
PM02	AB71184	11/14/2017 11:06	11/21/2017	11/22/2017	47	5	
Comments:							
MM02	AB71185	11/14/2017 11:24	11/21/2017	11/22/2017	16	5	
Comments:							
MM03	AB71186	11/14/2017 11:37	11/21/2017	11/22/2017	14	5	
Comments:							
DUP6	AB71187	11/14/2017 0:00	11/21/2017	11/22/2017	47	5	
Comments:							
Blank			11/21/2017	11/22/2017	ND	5	
Comments:							

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Merrymeeting River - New Durham, NH

MATRIX SPIKE (MS) Results

SAMPLE ID	PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
AB71183	Total Phosphorus in Water as P	97.8	21	122	103.3	85 - 115

Comments:

MATRIX SPIKE DUPE (MSD) RESULTS

SAMPLE ID	PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
AB71183	Total Phosphorus in Water as P	97.8	123	104	1	20

Comments:

Laboratory Duplicate Results

SAMPLE ID	PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUP RESULT ug/L	PRECISION RPD %	QC LIMITS (%RPD)
AB71183	Total Phosphorus in Water as P	21	21	0	20

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Merrymeeting River - New Durham, NH

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/L	LFB RESULT ug/L	LFB RECOVERY %	QC LIMITS %
Total Phosphorus in Water as P	97.8	101	103.3	90 - 110

Samples in Batch: AB71182, AB71183, AB71184, AB71185, AB71186, AB71187



REGION 1

CHAIN OF CUSTODY RECORD

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